REMARKS

Claims 53-55 and 61-63 are pending with entry of this amendment. Claims 62-63 are new.

Claims 53-55 and 61 stand rejected by the Examiner.

Applicant has amended the specification and abstract of the instant application to correct the informalities identified by the Examiner. Withdrawal of the objections to the abstract and specification are hereby respectfully solicited.

REJECTIONS

At paragraph 6 of the Office Action, Claims 53-55 and 61 stand improperly rejected under 35 U.S.C. § 102(b) as being anticipated U.S. Patent No. 4,546,322 to by Crutcher ("Crutcher"). Crutcher does not teach each and every element of Claims 53-55 and 61; thus, reconsideration and withdrawal of the rejection is hereby solicited.

Claim 53 recites, *inter alia,*

> providing a phase lock loop mode of operation to maintain frequency lock over a selected first range of frequency drift;
> providing a sweep mode of operation to step operation of said phase lock loop first range of frequency drift over a selected second range of frequency drift; and
> **monitoring at least one of said phase lock loop mode of operation and said sweep mode of operation to determine a portion of said second range of frequency drift said first range is successfully able to maintain said frequency lock;**
> **wherein the size of the first range of frequency drift is substantially equal to the lock range of the phase lock loop.** (emphasis supplied).

Crutcher is generally directed to a method and apparatus for carrier recovery. Crutcher discloses a PLL that initially operates in a sweep mode. Once the respective demodulator finds a preferred phase, the PLL enters into a locked mode. Col. 4, ll. 32-36. The demodulator includes a ROM which stores plural data words. These data words correspond to the digital signal which was encoded at the modulator by addressing various locations in the ROM. Col. 5, ll. 47-66. Each word in the ROM contains three bits utilized to control carrier recovery, the level of which ("0" or "1") depends upon the operation of the PLL. For example, when the phase of the VCO becomes identical to any one of a predetermined number of preferred phases, it is desirable to cause the PLL to enter into a locked mode. Upon entering into a locked mode, the PLL changes the applicable bit(s) which provides a ROM output of "BW CNTRL". In response to this output, an adaptive loop filter will control the bandwidth (e.g., narrow or wide) over which the PLL operates. Col. 6, ll. 12-39. There is, however, no disclosure of monitoring at least one of the phase lock loop mode of operation and the sweep mode of operation to determine a portion of the second range of frequency drift, the first range being successfully able to maintain the frequency lock where the size of the first range of frequency drift is substantially equal to the lock range of the phase lock loop. The Examiner appears to agree and rather states that it would be inherent to monitor. Using the Examiner's inherency argument it should follow that the monitoring is necessarily present in Crutcher; however, Applicant cannot find any disclosure or inference of such

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monitoring in the portion cited (Col. 4, ll. 22-42) or for that matter in the entire reference. Applicant respectfully requests that Examiner clarify his reasoning and also explain why Crutcher teaches this monitoring to determine a portion of the second range of frequency drift.

Furthermore, Applicant cannot find any disclosure or teaching in Crutcher regarding where the size of the first range of frequency drift is substantially equal to the lock range of the phase lock loop. Thus, Applicant respectfully requests that the Examiner provide support in Crutcher regarding this element. Applicant submits that Crutcher does not teach each and every element of independent Claim 53. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(b) of Claim 53 is hereby respectfully solicited.
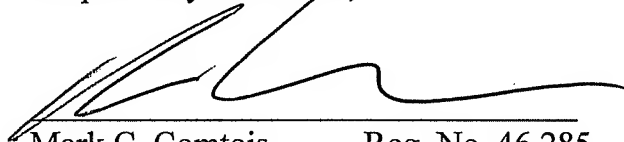
Claims 54-55 and 61 are dependent upon independent Claim 53. Claim 53 is in condition for allowance. Thus, the claims depending from independent Claim 53 are patentable at least by virtue of their dependence without need to resort to the additional patentable limitations contained therein. Reconsideration and withdrawal of the rejection of Claims 54-55 and 61 under 35 U.S.C. § 102(b) are hereby solicited.

New Claims 62-63 have been added. The prior art of record does not teach each and every element, alone or in combination, of Claims 62-63. Consideration and allowance of Claims 62-63 are hereby solicited.

If the Examiner has any questions relating to this response or the application in general, the Examiner is respectfully requested to contact the undersigned so that prosecution may be expedited.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to **Deposit Account No. 04-1679**.

Respectfully submitted,

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